

Lloyd's Register of Shipping.
SURVEYS FOR FREEBOARD.

No 104177

Computation of Freeboard for Steamer, Sailing Ship, Tanker
having Poop, Bridge and Forecastle

(Type of Superstructures.) See L.P. 8202 M.T. 14/5/34

Port of Survey Liverpool
Date of Survey During attention
Name of Surveyor E.H. Dean
Particulars of Classification +100 A.I.
SS much 701-33

Ship's Name "CITY OF DIEPPE" Nationality and Port of Registry British Glasgow Official Number 160254 Gross Tonnage 7958 Date of Build 1929

Moulded Dimensions: Length 289'9" Breadth 58'0" Depth 34'11" 35'0"
Moulded displacement at moulded draught = 85 per cent. of moulded depth 175.85 tons
Coefficient of fineness for use with Tables .728

Depth for Freeboard (D) 35.00
Moulded depth ... 34.92
Stringer plate04
Sheathing on exposed deck $T \left(\frac{L-S}{L} \right) = .25 \times \frac{65.25}{490} = .03$
Depth for Freeboard (D) = 35.07

Depth correction
(a) Where D is greater than Table depth
(D - Table depth) R = $(35.07 - 32.67) \times 3 = + 7.20$
(b) Where D is less than Table depth (if allowed)
(Table depth - D) R = ✓
If restricted by superstructures ✓

Round of Beam correction
Moulded Breadth (B) 58'0"
Standard Round of Beam = $\frac{B \times 12}{50} = 13.92$
Ship's Round of Beam = 14'50"
Difference .58
Restricted to
Correction = $\frac{\text{Diff}}{4} \times \left(1 - \frac{S_1}{L} \right) = \frac{.58}{4} \times 2436 = - .04$

DEDUCTION FOR SUPERSTRUCTURES.

	Mean Covered Length (S)	Equivalent Enclosed Length (S ₁)	Height	Height Correction	Effective Length (E)
Poop enclosed ...	<u>83'9"</u>	<u>83.75</u>	<u>10'0"</u>	<u>✓</u>	<u>83.75</u>
" overhang ...	-	-	-	-	-
R.Q.D. enclosed ...	-	-	-	-	-
" overhang ...	-	-	-	-	-
Bridge enclosed...	<u>179'6"</u>	<u>179.50</u>	<u>8'0"</u>	<u>✓</u>	<u>179.50</u>
" overhang aft ...	-	-	-	-	-
" overhang forward	<u>107'37"</u>	<u>107.25</u>	<u>8'0"</u>	<u>✓</u>	<u>107.37</u>
" overhang ...	-	-	-	-	-
Trunk aft ...	-	-	-	-	-
" forward ...	-	-	-	-	-
Tonnage opening aft ...	-	-	-	-	-
" forward	-	-	-	-	-
Total ...	<u>370.62</u>	<u>370.62</u>	-	-	<u>370.62</u>

Standard Height of Superstructure 7.50
" " R.Q.D. 42
Deduction for complete superstructure 42
Percentage covered $\frac{S}{L} = 75.64$
" $\frac{S_1}{L} = 75.64$
" $\frac{E}{L} = 75.64$
Percentage from Table, Line A. ✓
(corrected for absence of forecastle (if required))
Percentage from Table, Line B. 69.94
(corrected for absence of forecastle (if required))
Interpolation for bridge less than 2L (if required) ✓
Deduction = 42 × 69.94 = - 29.37

SHEER CORRECTION.

Station	Standard Ordinate	S	M	Product	Actual Ordinate	Effective Ordinate	S	M	Product
A.P. ...	<u>59.00</u>	<u>1</u>	<u>✓</u>	<u>59.00</u>	<u>63.25</u>	<u>63.25</u>	<u>1</u>	<u>✓</u>	<u>63.25</u>
$\frac{1}{2}$ L from A.P. ...	<u>26.25</u>	<u>4</u>	<u>✓</u>	<u>105.00</u>	<u>28.00</u>	<u>28.00</u>	<u>4</u>	<u>✓</u>	<u>112.00</u>
$\frac{2}{3}$ L " ...	<u>6.49</u>	<u>2</u>	<u>✓</u>	<u>12.98</u>	<u>6.75</u>	<u>6.75</u>	<u>2</u>	<u>✓</u>	<u>13.50</u>
Amidships ...	-	<u>4</u>	<u>✓</u>	-	-	-	<u>4</u>	<u>✓</u>	-
$\frac{2}{3}$ L from F.P. ...	<u>12.98</u>	<u>2</u>	<u>✓</u>	<u>25.96</u>	<u>18.75</u>	<u>18.75</u>	<u>2</u>	<u>✓</u>	<u>37.50</u>
$\frac{1}{2}$ L " ...	<u>52.50</u>	<u>4</u>	<u>✓</u>	<u>210.00</u>	<u>84.00</u>	<u>84.00</u>	<u>4</u>	<u>✓</u>	<u>336.00</u>
F.P. ...	<u>118.00</u>	<u>1</u>	<u>✓</u>	<u>118.00</u>	<u>161.00</u>	<u>161.00</u>	<u>1</u>	<u>✓</u>	<u>161.00</u>
Total ...	-	-	-	<u>530.94</u>	-	-	-	-	<u>723.25</u>

Correction = $\frac{\text{Difference between sums of products}}{18} = \frac{192.31}{18} = 10.74$
If limited on account of midship superstructure. ✓

Mean actual shear aft = Excess
Mean standard shear aft = Excess
Mean actual shear forward = Excess
Mean standard shear forward = Excess
Length of enclosed superstructure forward of amidships = 7.1L
" " aft of " = 7.1L

Deduction for Tropical Freeboard.
Addition for Winter and Winter North Atlantic Freeboard.

Depth to Freeboard Deck = 35'04"
Summer freeboard = 6'35"
Moulded draught (d) = 28'69"

Deduction for Tropical freeboard and addition for Winter freeboard = $\frac{d}{4}$ inches = 7'17" - 7'14"
Addition for Winter North Atlantic Freeboard (if required) = ✓

Deduction for Fresh Water.

Displacement in salt water at summer load water line

$\Delta =$

Tons per inch immersion at summer load water line

T =

Deduction = $\frac{\Delta}{40 T}$ inches

7'12"

TABULAR FREEBOARD corrected for Flush Deck (if required)
Correction for coefficient $\frac{.728 + .68}{1.36} = \frac{1.408}{1.36}$

	+	-
Depth Correction ...	<u>7.20</u>	-
Deduction for superstructures ...	-	<u>29.37</u>
Sheer correction ...	-	<u>3.97</u>
Round of Beam correction ...	-	<u>0.04</u>
Correction for Thickness of Deck amidships ...	-	<u>0.36</u>
Other corrections, scandlings, etc. ...	-	-
Total	<u>7.20</u>	<u>33.74</u>

Summer Freeboard = 76.26

SUMMER FREEBOARD amidships from Centre of Disc to top of Deck Line, Steel, Deck :-

Tropical Fresh Water Line above Centre of Disc ...	<u>14'34"</u>
Fresh Water Line " " ...	<u>7'12"</u>
Tropical Line " " ...	<u>7'14"</u>
Winter Line below " " ...	<u>7'14"</u>
Winter North Atlantic Line " " ...	<u>✓</u>

Tropical Fresh Water Freeboard ...	<u>5' - 1 1/2"</u>
Fresh Water " " ...	<u>5' - 8 3/4"</u>
Tropical " " ...	<u>5' - 9 1/2"</u>
Winter " " ...	<u>6' - 11 1/2"</u>
Winter North Atlantic " " ...	<u>✓</u>

PARTICULARS OF PROTECTION TO OPENINGS, ETC.

HATCHWAYS ON FREEBOARD AND SUPERSTRUCTURE DECKS												
← <i>superstructure deck</i> → ← <i>freeboard deck</i> →												
Description of Hatchway			Nº 1	Nº 3	Nº 4	Nº 6	Nº 1	Nº 2	Nº 3	Nº 4	Nº 5	Nº 6
Dimensions of Hatchway			24'9" x 18'0"	24' x 18'0"	18'0" x 18'0"	27' x 20'	24'9" x 18'	48' x 20'	24'0" x 12' x 18'	15' x 18'	39' x 20'	27' x 20'
COAMINGS	{	Height above Deck	2'8"	2'4½"	2'8"	2'8"	1'6"	2'8"	1'6"	1'6"	2'6"	1'6"
		Thickness { Sides	50"	52"	50"	50"	50"	68"	50"	44"	64"	63"
			Ends	44"	44"	44"	44"	44"	44"	44"	44"	44"
		Stiffeners	8 x 3½ B.A.	9 x 3½ B.A.	12 x 3½ B.A.	11 x 3½ B.A.	12 x 3½ B.A.	18' x 4 x 4 x 60	9 x 3½ B.A.	9 x 3½ B.A.	18' x 4 x 4 x 60	12 x 3½ B.A.
Brackets, Stays			8-2" DIA.	4-2" DIA.	2-2" DIA.	4-2" DIA.	8-2" DIA.	8-2" DIA.	4-2" DIA.	2-2" DIA.	6-2" DIA.	4-2" DIA.
HATCH BEAMS	{	Number	5	4	2	5	5	9	4	2	7	5
		Spacing	4'1½"	4'9½"	4'0"	4'6"	4'1½"	4'10"	4'9½"	4'	4'10½"	4'6"
		Scantling and Sketch	7½ 14½ x 7½ ✓ 36"	12 to 7½ 32"	11½ to 8" 36"	12½ to 8" 35"	14½ - 9" 38"	17½ - 9" 38"	21½ - 10½" 36"	16 - 8½" 38"	18 - 10" 35"	19 - 10½" 38"
		Bearing Surface	3½ ✓	3½	3½	3½	3½	3½	3½	3½	3½	3½
FORE AND AFTERS	{	Number										
		Spacing										
		Unsupported Lengths										
		Scantling* and Sketch	✓	✓	✓	✓	✓	✓	TRUNKED BETWEEN UPPER & BRIDGE DECKS WITH INSUL. DOORS TO HATCH	✓	✓	✓
Bearing Surface												
HATCH COVERS	{	Material	W.P.				W.P.	W.P.	W.P.	W.P.	W.P.	W.P.
		Thickness	3"	D2	D2	D2	2½"	3	2½ x 3"	2½"	3"	2½"
		How fitted	F&A.				F&A.	F&A.	F&A.	F&A.	F&A.	F&A.
		Bearing Surface	3" ✓				3"	3	3	3	3	3
Spacing of Cleats			24"	24"	24"	20" to 24"	24"	24"	24"	24"	24"	24"
Number of Tarpaulins			2 ✓	2	2	2	2	2	2	2	2	2
*Are wood fore and afters steel shod at all bearing surfaces? <i>yes</i> Are battens and wedges efficient and in good condition? <i>yes</i> Are tarpaulins in good condition and in accordance with rule requirements? <i>yes.</i> Are lashings provided in accordance with rule requirements? <i>yes.</i>												

Particulars of fiddle, funnel and ventilator coamings:— *Fiddle seatings are protected by steel hinged covers. Funnel and Ventilators are in good condition. Engine Room skylight is of steel - strongly constructed.*

Particulars of Flush Bunker Scuttles:—

None

Particulars of Companionways:— *To Engine Room - aft end of Bridge House - Hinged Steel Door 3'0" x 5'0" sill 18" - painted both sides. Peep House - To Crews W.C. on upper DE aft. Hinged Steel Door 2'0" x 4'11" - sill 15½" painted both sides. Peep House - To Crews Quarters on upper DE aft. Similar to W.C. entrance.*

Particulars of Ventilators in exposed positions on freeboard and superstructure decks:—

FOCLE. F.P. Store 12" dia. 36" high. Fore Well. No 2 Hold. 21" dia. 9'8" high. AFT. Well. No 8 Hold. 28" dia. 12'5" high. No 1 Hold. 26" " 8'0" " Bridge. No 3 Hold. 30" " 6'1" " Peep. No 6 " 28" " 3'0" " T.O. 18" " 36" " " " 22" " 36" " " " 26" " 36" " No 4 Hold. 25" " 10'7" " " " 24" " 11'3" " Crew Mt. 8" dia. 3'0" high. The high vents are efficiently supported. Wood plugs or canvas covers are on board.

Particulars of Air Pipes in exposed positions on freeboard, raised quarter, or superstructure decks:—

Fore Peak - Patent "Almas" W.T. Valve. O.B. Tanks - Fore Well - 6" dia. - 2'9" to mouth " " - Bridge DE - 6" " - 10½" " " " - 3½" " - 14½" " " aft Peak - Peep " - 4" " - 18" " "

Canvas covers provided for all air pipes.

Particulars of Gangway Cargo and Coaling Ports:—

2 - Cargo Doors each side in Bridge Incom Deck Hinged Steel Door - 3'4" x 5'6" - well secured by 2 strong bars with 2-1¼" bolts in each.



Particulars of Scuppers and Sanitary Discharge Pipes: — Scuppers in Wells thro' shell & Deck - collinson type.
Bridge Deck dks - 3 Scuppers each side - Cast brass with storm Valves - thro' shell above dk. Bolted plate on each side -
Forecastle & one in Poop p.s. similar.
In Forecastle space bet. 3 Bridge Deck dks - 2 P.S. & 1 Centre - 2 1/2" dia. led down to bilge.
Fore end of Crew space aft - Scupper - bent pipe thro' deck & shell with brass storm Valves.
Sanitary discharges & Wastes are all iron pipes with M.C.L. storm Valves.

Particulars of Side Scuttles: — In Forecastle, Bridge & Poop Deck dks - 9" dia. with hinged iron deadlights. Crew space aft - 10" dia. with hinged deadlights.

Particulars of Guard Rails: — Gale Bulwark -

Bulwark in Wells 4'-3" high - stays 7 1/2" B.R. 4'-6" - 6'-0" apart. Rail 6" x 3" B.A.
Bridge Rails - 3'-4" high - stanchions 4'-10" apart.
Poop " - 3'-4" " - " 5'-0" "

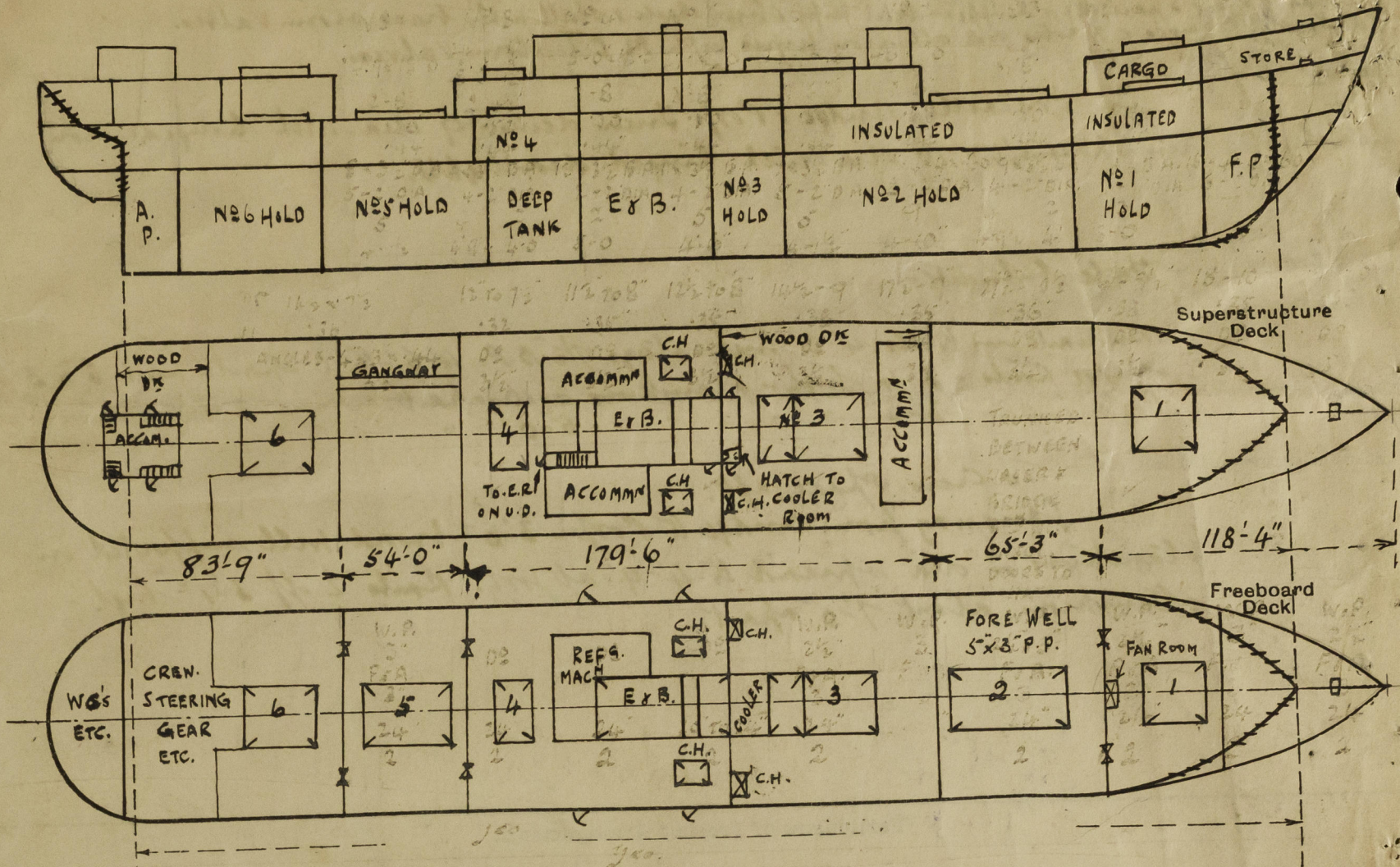
Particulars of Gangways, Lifelines, etc.: — To Crew space aft.
Gangway from Bridge to Poop - 3'-0" broad well supported on stanchions 2" dia spread to 4'-9" at foot. Rails 2 off 3'-1" high - stanchions about 7'-0" apart.
Lifelines provided in forward well

Particulars of Freeing Arrangements.						
	Length of Bulwark	Height of Bulwark	Size of Freeing Ports	Number each side	Area each side	Rule area each side
After Well	54'-0"	4'-3"	2'-11" x 1'-7"	3	13.33 sq	11.9 sq
Forward Well	65'-3"	4'-3"	2'-11" x 1'-7 1/2"	3	14.23 sq	13.08 sq
State position of each freeing port } After Well: — 7'-0" - 19'-8" - 44'-6" Sill 17" (F. and A. position and height above deck edge) } Forward Well: — From Bogg. 7'-0" - 27'-0" - 51'-0" " 18" State whether the freeing ports are fitted with shutters, bars, or rails, and give particulars of such: — Hinged shutters with 1 Rail across Additional area where sheer is less than standard. ✓						

Particulars of Superstructures, Trunks, Casings, Deckhouses.								
	Coaming	Plating	Stiffeners	Spacing	End Attachments of Stiffeners	Size of Openings	Height of Sills	Height of Casings
Poop Bulkhead ... ..	.45"	.40"	9" x 3 1/2" B.A.	2'-6"	Lugs	4'-0" x 8'-1"	1'-8"	10'-0"
Raised Quarter Deck Bulkhead ...	✓	✓	✓	✓	✓	✓	✓	✓
Bridge, After Bulkhead ... ..	.30"	.30"	4" x 3" x .35"	2'-9"	BKs. every 3'	4'-0" x 8'-1"	1'-8"	8'-0"
Bridge, Forward Bulkhead ... ..	.48"	.42"	9 1/2" x 3 1/2" B.A.	2'-6"	BKs	-	-	8'-0"
Forecastle Bulkhead ... ..	.33	.33	4" x 3" x .30"	3'-0"	"	4'-0" x 8'-0"	1'-3 1/2"	8'-0"
Trunk, Aft	-	-	-	-	-	-	-	-
Trunk, Forward	-	-	-	-	-	-	-	-
Exposed Machinery Casings on Free-board or Raised Quarter Decks ...	.46"	.46"	3 1/2" x 3 1/2" x .36"	2'-0"	BKs (Top)	2'-0" x 8'-2"	1'-6"	8'-0"
Exposed Machinery Casings on Super-structure Decks ... ..	.40"	.40"	3 1/2" x 3 1/2" x .36"	2'-6"	" "	2'-0" x 5'-0"	1'-3 1/2"	8'-0"
Machinery Casings within Superstruc-tures not fitted with Class I Closing Appliances	-	-	-	-	-	-	-	-
Deckhouses on Flush Deck Ships ...	-	-	-	-	-	-	-	-

Particulars of Closing Appliances (state if capable of being manipulated from both sides).		
Poop Bulkhead	Steel plate fastened by 14 hook bolts not thro' bulkhead.	} Plates stiffened by 2 Vert. Angles 3" x 3" x .46"
Raised Quarter Deck Bulkhead ...	✓	
Bridge, After Bulkhead	Steel plate fastened by 14 hook bolts not thro' bulkhead	
Bridge, Forward Bulkhead	Steel No openings.	
Forecastle Bulkhead	Steel plate fastened by 14 hook bolts not thro' bulkhead.	
Exposed Machinery Casings on Free-board or Raised Quarter Decks ...	Steel doors fastened by lock-operated both sides.	
Exposed Machinery Casings on Super-structure Decks	" " " " " "	
Machinery Casings within Superstruc-tures not fitted with Class I Closing Appliances	✓	
Deckhouses on Flush Deck Ships ...	✓	

Superstructure bulkheads, trunks, deckhouses, casings, cargo and coaling hatchways, extent and thickness of sheathing on the freeboard deck, gangway, cargo and coaling ports, and any other openings, etc., which would affect the seaworthiness of the ship are to be shewn on the following sketches:—



State any special features in the construction of the ship:—

Note: The new moulded length is given on a 28' 3" draft as given on the owners displacement scale.

	TO F.P. STORE IN FOLE	TO FAN ROOM FOLE	BUNKER HATCH DOGDS	BUNKER HATCH DOGDS	BUNKER HATCH U.DS	BUNKER HATCH U.DS	CASING TOP HATCH	POOP HATCH TO STORE	HATCH IN GALLERY
SIZE	3'10" x 2'4"	1'10" x 1'7"	4'5" x 2'4"	10'0" x 9'0"	14'8" x 4"	4'6" x 2'4"	7'6" x 1'6"	3'6" x 4"	2' x 2'
HEIGHT	1'-3"	2'-0"	2'-4 1/2"	2'-8"	9 1/2" B.A.	9 1/2" B.A.	8 1/2" B.A.	1'4 1/2"	10"
COVERS	STEEL .35	STEEL W.T.	W.P. 1 1/2"	W.P. 3"	W.P. 2 1/2"	W.P. 2 1/2"	W.P. 2 1/2"	-	STEEL
BEARING SURFACE	SECURED ON RUBBER		2 1/4"	2 1/4"	2 1/4"	2 1/4"	3"	STEEL	-
CLEARANCE	BY 3/4"	8-3/4"	23"	22"	24"	20"	19"	8-3/4" T.O.S.	8-3/4" T.O.S.
TARPS	BELTS 3 1/2"	T.B.S.	2	2	2	2	2	-	-
THICK. COAMING	PITCH		.30"	.36"	-	-	-	.36"	.30"

Batten, Wedges, cleats & lampglass are all in good condition.

Vessel Surveyed in dry dock for fitting of "Harrier Lane" Bow.

Builder's name and yard number

Messrs Wm Gray & Co. West Hantsport.

Names of sister ships

Owners

Ellerman Lines Ltd. (City Line Ltd.)

Fee £ 16 : 3 : 0

Received by me



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Foundation